AMENDMENT TO THE CLAIMS

1. (Currently Amended) A method of densifying porous substrates of hollow shape by chemical vapor infiltration ~~at pressure equilibrium~~, the substrates each having an inside volume defined by a concave inside face and having an outside face, the method comprising the steps of:

~~disposing~~ placing at least one hollow substrate to be densifyied in an enclosure; ~~and~~

admitting a reactive gas into the enclosure through a gas inlet opening into the enclosure at one end thereof;

causing the gas to flow through the enclosure between said reactive gas inlet and an effluent gas outlet at another end of the enclosure;

dividing at least a portion of the reactive gas flow entering the enclosure into first and second non-zero fractions, wherein the first fraction of the reactive gas flow is fed to the inside face of the at least one substrate and the second fraction of the reactive gas flow is fed to the second face of the at least one substrate; and

~~, the method being characterized in that part of the reactive gas flow admitted into the enclosure is guided~~ guiding the first fraction of the reactive gas flow feeding the inside face of the at least one substrate by means of a tooling directing the gas into ~~to~~ the inside ~~of the~~ volume ~~defined by~~ of the substrate so that the concave inside face of the ~~or each hollow-shaped~~ substrate ~~so that said concave inside face~~ is swept in full by ~~a~~ the first fraction of the total reactive gas flow admitted into the enclosure~~total admitted gas flow~~.

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2. (Canceled)

3. (Currently Amended) A method according to claim 1, wherein ~~characterized in that~~ the fraction of the total reactive gas flow sweeping over a face of said at least one ~~the or each~~ substrate placed in the enclosure is not less than 5%.

4. (Currently Amended) A method according to claim 1, wherein ~~characterized in that~~ the fraction of the total reactive gas flow sweeping over a face of said at least one ~~the or each~~ substrate placed in the enclosure is not less than 10%.

5. (Currently Amended) A method according to claim 1, wherein ~~characterized in that~~ a plurality of substrates are densified simultaneously, the substrates being placed inside the enclosure in alignment in the general flow direction of the gas through the enclosure.

6. (Currently Amended) A method according to claim 1, wherein said ~~characterized in that the~~ guidance of a portion of the gas flow is provided by a wall portion which penetrates ~~part of the way~~ into the volume defined by the concave inside face of said at least one ~~the or each~~ substrate.

7. (Currently Amended) A method according to claim 6, wherein said portion of ~~characterized in that~~ the gas flow is guided in part by a cylindrical wall portion to the vicinity of ~~the~~ an end wall of the inside volume of said at least one ~~or each~~ substrate.

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8. (Currently Amended) A method according to claim 1, wherein ~~characterized in that~~ the guidance of a portion of the gas flow is provided by passages formed through a body housed inside the volume defined by the concave inside face of said at least one ~~the or each~~ substrate.

9. (Withdrawn) An installation for densifying hollow-shaped porous substrate by chemical vapor infiltration, the installation comprising an enclosure having a side wall and first and second end walls opposite each other, means for admitting a reactive gas opening out into the enclosure through the first end wall, means for evacuating effluent gas opening out into the enclosure through the second end wall, and at least one tray for supporting a substrate to be densified, the installation being characterized in that it further comprises means for distributing and guiding the gas flow so as to bring a fraction of the admitted reactive gas flow to the location of each substrate within the enclosure and so as to guide a portion of the gas flow brought to said location to the inside of a volume defined by a concave inside face of a substrate disposed at said location.

10. (Withdrawn) An installation according to claim 9, characterized in that the flow guide means comprise guide tooling constituted by a cylindrical wall portion disposed in such a manner as to penetrate at least in part into said substrate volume.

11. (Withdrawn) An installation according to claim 9, characterized in that the flow guide means comprise guide tooling

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constituted by a body presenting a plurality of through passages and disposed in such a manner as to penetrate at least in part into said substrate volume.

12. (Withdrawn) An installation according to claim 9, characterized in that the flow distribution means comprise one or more trays which are disposed transversely inside the enclosure and which define flow-distributing passages formed by openings made through the trays and by gaps left between the trays and a side wall of the enclosure.

13. (Currently Amended) A method according to claim ~~2~~5, wherein ~~characterized in that~~ the fraction of the total reactive gas flow sweeping over a face of ~~the or~~ each substrate placed in the enclosure is not less than 5%.

14. (Currently Amended) A method according to claim ~~2~~5, wherein ~~characterized in that~~ the fraction of the total reactive gas flow sweeping over a face of ~~the or~~ each substrate placed in the enclosure is not less than 10%.

15. (Currently Amended) A method according to claim ~~2~~6, wherein ~~characterized in that~~ a plurality of substrates are densified simultaneously, the substrates being placed inside the enclosure in alignment in the general flow direction of the gas through the enclosure.

16. (Currently Amended) A method according to claim ~~3~~7, wherein ~~characterized in that~~ a plurality of substrates are densified

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simultaneously, the substrates being placed inside the enclosure in alignment in the general flow direction of the gas through the enclosure.

17. (Previously Presented) A method according to claim 4, characterized in that a plurality of substrates are densified simultaneously, the substrates being placed inside the enclosure in alignment in the general flow direction of the gas through the enclosure.

18. (Withdrawn) An installation according to claim 10, characterized in that the flow distribution means comprise one or more trays which are disposed transversely inside the enclosure and which define flow-distributing passages formed by openings made through the trays and by gaps left between the trays and a side wall of the enclosure.

19. (Withdrawn) An installation according to claim 11, characterized in that the flow distribution means comprise one or more trays which are disposed transversely inside the enclosure and which define flow-distributing passages formed by openings made through the trays and by gaps left between the trays and a side wall of the enclosure.

20. (Currently Amended) A method according to claim ~~2~~1, wherein ~~characterized in that~~:

a plurality of substrates are densified simultaneously, the substrates being placed inside the enclosure in alignment in the general flow direction of the gas through the enclosure;

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the fraction of the total reactive gas flow sweeping over a face of ~~the or~~ each substrate placed in the enclosure is not less than ~~10~~5%;

~~a plurality of substrates are densified simultaneously, the substrates being placed inside the enclosure in alignment in the general flow direction of the gas through the enclosure;~~

the guidance of a portion of the gas flow is provided at least in part by a cylindrical wall portion which penetrates ~~part of the way~~ into the volume defined by the concave inside face of the or each substrate, ~~; the gas flow is guided in part by a cylindrical wall portion~~ to the vicinity of the end wall of the or each substrate.

21. (Currently Amended) A method according to claim ~~2~~1, wherein ~~characterized in that~~:

a plurality of substrates are densified simultaneously, the substrates being placed inside the enclosure in alignment in the general flow direction of the gas through the enclosure;

the fraction of the total reactive gas flow sweeping over a face of ~~the or~~ each substrate placed in the enclosure is not less than ~~10~~5%;

~~a plurality of substrates are densified simultaneously, the substrates being placed inside the enclosure in alignment in the general flow direction of the gas through the enclosure;~~

the guidance of a portion of the gas flow is provided by passages formed through a body housed inside ~~a wall portion which penetrates part of the way into~~ the volume defined by the concave inside face of ~~the or~~ each substrate~~;~~

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~~the gas flow is guided in part by a cylindrical wall portion to the vicinity of the end wall of the or each substrate;~~

~~the guidance of a portion of the gas flow is provided by passages formed through a body housed inside the volume defined by the concave inside face of the or each substrate~~.

22. (New) A method of densifying a porous substrate of hollow shape by chemical vapor infiltration, the substrate having a concave inside face, an outside face and an inside volume defined by the concave inside face, the method comprising:

placing the hollow substrate to be densifyied in an enclosure;

admitting a reactive gas into the enclosure through a gas inlet opening into the enclosure;

causing the gas to flow through the enclosure between said gas inlet and an effluent gas outlet;

directing a first non-zero portion, but not all, of the reactive gas flowing through the enclosure into the inside volume of the substrate, wherein the concave inside face of the substrate is swept in full by the first portion of the reactive gas flow; and

feeding a second non-zero portion of the reactive gas flowing through the enclosure to the second face of the substrate.

23. (New) A method according to claim 22, further comprising:

placing at least one other hollow substrate to be the densifyied in the enclosure;

for each of the other hollow substrates, directing a respective first non-zero portion, but not all, of the reactive

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gas flowing through the enclosure into the inside volume of the other substrate, wherein the concave inside face of the other substrate is swept in full by the respective first fraction of the reactive gas flow; and

feeding a respective second non-zero portion of the reactive gas flowing through the enclosure to the second face of the other substrate.

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AMENDMENT TO THE DRAWINGS

Please refer to the enclosed Replacement Sheets and Annotated Marked-Up Drawings for Figs. 2, 5, 7, 11, 12 and 13. The marked-up copies of the drawings highlight changes thereon in red ink.

The Examiner noted that Figs. 11-13 should be designated by a legend, such as "Prior Art." Proposed replacement drawings for Figs. 11-13 are filed herewith.

The Examiner objected to the drawings, because they include certain reference signs not mentioned in the description and they do not include certain reference signs that are mentioned in the description. The Examiner asserted that the drawings do not include reference sign 330_2, which is referred to on page 13, lines 23 and 27. This reference sign appears in Fig. 7. It is believed that the Examiner intended to identify reference sign 331_2 (referred to on page 13, lines 24 and 27) as not being included in the drawings. Proposed replacement drawings for Figs. 2, 5, 7 and 11 are filed herewith to address these objections.

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